

CEM Matters

Newsletter #3

April 2019

Welcome back to CEM Matters!



So much is already happening this year across CEM work streams – workshops, webinars, collaboration projects and other activities. In this issue, our first for 2019, we bring you CEM work streams news and upcoming events, highlights from the Senior Officials meeting, held in Santiago in January, and all the information about the upcoming Tenth Clean Energy Ministerial (CEM10) in Vancouver, taking place

in the last week of May. It is shaping up to be a very exciting event, with many new and innovative elements, including the Youth Forum, Innovation Showcase and dedicated work stream events. We are also continuing our series of CEM Family Portraits – this time with a short Q&A with Thiago Ferreira from Brazil.

We hope you enjoy our newsletter. Please share it with colleagues and do get in touch if you would like to be featured or to let us know what you think.

Best wishes,
The CEM Secretariat

CEM10 in Vancouver, Canada

The countdown is on!

Canada is hosting the tenth Clean Energy Ministerial and fourth Mission Innovation Ministerial (CEM10/MI-4) meetings this May in Vancouver.

Ministers and delegates will gather at the Vancouver Convention Centre between 27 - 29 May for a series of high-level meetings, public-private



roundtables, and workshops with in-depth discussions to accelerate progress towards a clean energy future. As host, Canada will highlight the leadership of women, Indigenous peoples and youth in the energy sector, with dedicated events that week.

CEM₁₀



The Ministerial meeting has been structured around three key themes: (1) Building the Energy Systems of Tomorrow; (2) Enabling Investment, and (3) Empowering People and Communities. The Ministerial closed-door session, as well as the subsequent public-private roundtables, will take place on 29 May and will be an opportunity to make significant progress on a number of key issues relating to: Clean Power and Electricity, Smarter

Energy Use, Sustainable Financing and Investment, and Workforces and Communities. In addition, a joint CEM/MI roundtable will focus on Gender Diversity and the Innovation Cycle.

There will also be a range of CEM side events, dedicated to activities undertaken by the CEM and organised by CEM work streams and CEM Members. A schedule of these events will be available on the CEM10/MI-4 website in due course.

INNOVATION SHOWCASE

Canada is planning exciting features in the programme, including an Innovation Showcase, which will feature dynamic exhibits, presentations and activities that will create business and investment opportunities around clean energy technologies, services and programmes from Canada and abroad. An Innovation Theatre will feature presentations and media announcements to further engage the business community,



government, media, and civil society over the two days the showcase is open. A limited number of exhibition spaces are still available. For further details on opportunities in the Innovation Showcase or to register interest, please contact: will.broad@globeseries.com.

YOUTH FORUM



Canada will also welcome seventy youth delegates from CEM and MI countr part in a parallel event – the Youth Leaders Forum, organised by Student Energy, a global youth–led non–profit organisation.

The Youth Leaders Forum is a first-of-its-kind opportunity for young people around the world to participate in a programme alongside two international Ministerial meetings that bring together Ministers and senior business leaders to advance the clean energy transition.

To learn more about the youth delegates, including their "Clean Energy Stories", visit the CEM/MI youth portal.

GENDER EQUALITY

The CEM10/MI-4 programme reflects Canada's commitment to gender equality, including distinct events, such as the "Women in Clean Energy" Breakfast session on 29 May. This session will showcase the integrated design elements of gender within CEM10/MI-4, as well as demonstrate progress made under the CEM C3E initiative and Equal by 30 campaign.

Canada is also striving to ensure gender parity among participants and speakers, as well as highlight the leadership of women in clean energy across substantive programme elements.





CEM10 Preparatory meeting for Senior Officials in Santiago, Chile.



In January, we held the CEM10 Preparatory Meeting for Senior Officials in Santiago, Chile. The meeting was hosted by Canada (as host of CEM10) and Chile (as host of CEM11). It was a great pleasure having Chile's Energy Minister Susana Jimenez alongside Canada's Ambassador to Chile Patricia Peña open the meeting and provide keynote remarks, demonstrating the two countries' commitment to

the CEM and their joint collaboration as current and future Ministerial hosts.

The meeting was an important opportunity to review the work of the CEM work streams, progress made since CEM9 in Copenhagen in 2018, and to discuss ways to further improve and strengthen the work streams activities so they can achieve higher impact. Drawing on recommendations made by Ministers at CEM9 and those of the 2017 Review of CEM Initiatives and Campaigns, CEM Sherpas strongly encouraged CEM work streams to continue with the implementation of the recommendations, with a particular focus on concrete results, tangible outcomes, robust work plans, and adequate resourcing and funding.

The meeting was also an opportunity for Canada to present its plans for the upcoming CEM10 meeting, discuss future areas of work in the CEM (including the proposed hydrogen initiative and flexible nuclear campaign) and run (or power walk) together around Santiago as part of the CEM Social Club.

The CEM family

Welcome back to the CEM Family Portrait, introduced in the form of a Q&A. We interview colleagues who are working on CEM issues. In this instalment, we present:



Thiago Vasconcellos Barral Ferreira President of EPE, Brazil

Can you tell us about your professional background and your involvement with the CEM?

I started in the energy sector in 2007, when I joined EPE (Energy Research Office) as an energy research analyst. EPE is basically a technical branch of the Ministry of Mines and Energy of Brazil and our role is to provide and give publicity to energy planning studies, data and statistics to support the formulation, implementation and assessment of energy policies in Brazil. At EPE, I have held different positions, such as Head of Department, Director and, since February 2019, CEO. I have had the chance to take part in work on energy auctions, the 10-year and the 2050 energy plans, supply solutions to off-grid systems, environmental impact assessment studies, energy efficiency and energy demand studies and national energy statistics. I hold a degree in Engineering, a Masters in Water Resources and Environment and a post-graduate degree in Public Administration.

Early in 2018, as Director for Energy Economics and Environmental Studies, I became responsible for coordinating EPE's international collaboration activities and one of the most relevant was leading Brazil's engagement in the CEM. I had the chance to participate in the preparations for CEM9 and ended up representing the Brazilian Minister at the Ministerial Meeting. That opportunity gave me an exciting perspective on how to effectively use CEM as a platform for connecting people engaged in developing a cleaner energy future. Further, I had the chance to organise, with support of IEA, GIZ and NREL, the event "CEM Days" in Rio de Janeiro, which took place in Nov 2018, gathering experts to discuss the grid integration of renewables, taking advantage of the framework provided by CEM's PSF Campaign and 21CPP. More recently, in Feb 2019, our team at EPE helped organise a workshop in Brasilia under the LTES Campaign, with support of IRENA and the Ministry of Mines and Energy. Both events had significant impact in strengthening the agenda for clean energy. Brazil and EPE have also benefited from various webinars and technical discussions with partners that we made with the help of CEM.

What is your vision/hope for a clean energy future?

There are plenty of clean energy resources in the world and it's up to us to lead a transformation in our energy systems towards a sustainable future. I see a long path ahead. The transition I hope for is one guided not only by avoiding global warming and adopting new technologies to increase economic gains, but also by inclusive and fair development, with a balance between the various SDGs. Brazil, for example, is a leading country when it comes to clean energy, with relevant shares of biomass/biofuels, hydropower, wind, nuclear and increasing participation of solar and energy efficiency. Nonetheless, we have great potential to advance much further when it comes to clean energy and an urgent need to reduce inequality and poverty. If the right policies are designed and implemented, clean energy can be a powerful catalyst for local social and economic development, better education, healthier environments and a global sense of community.

Outside of clean energy issues, what else are you passionate about?

I love reading and talking about geopolitics. For example, more recently, I read "On China" and "World Order", both books by Henry Kissinger, exploring some very interesting historical developments regarding diplomatic relations. It's amazing to realise the vast diversity of perspectives towards "the other" and how they can affect cooperation between nations. I'm also passionate about the history of Brazil and chocolate!

Highlights from CEM work streams:



Electric Vehicle initiative (EVI)

The <u>Global EV Pilot City Programme (PCP)</u> launched its <u>website</u> which will soon include profile descriptions of all PCP partner cities and information on their activities to promote electric mobility at city level. The website aims to deliver on the goal of the EVI Global EV Pilot City Programme (EVI-PCP) to create a global platform to facilitate communications and cooperation among leading global cities interested in stimulating and increasing the uptake of electric mobility within their jurisdictions.

On 19 March, the programme together with the Electrification Coalition hosted a webinar on strategies to electrify city vehicle fleets with a focus on the Climate Mayors Electric Vehicle Purchasing Collaborative and Los Angeles' electric mobility strategy.

Nominate your cities to the Global EV PCP! Gain access to a global network of practitioners in major cities, leading or committed to leading, transport electrification programmes. Click here to join.



Long-term Energy Scenarios for Clean Energy Transition (LTES) campaign

"Long-term Scenarios for the Clean Energy Transition in Latin America"

workshop took place on 25 - 26 February in Brasilia, Brazil.

This workshop, co-hosted by the Ministry of Mines and Energy (MME) and the Energy Research Office (EPE) of Brazil, was one of the activities planned as part of the CEM Long-term Energy Scenarios campaign (CEM LTES) for which IRENA acts as operating agent.

The two-day workshop gathered country officials, multilateral development agencies and other experts working with energy scenarios in the region, to discuss issues regarding the use, development and capacity building of long-term energy scenarios (LTES) to support the clean energy transition, focusing on Latin America. Findings from the workshop will provide input in drafting a series of recommendations to be presented at CEM10 in May 2019. Presentations can be downloaded directly from the Ministry of Mines and Energy of Brazil's website.



Energy Management leadership Awards 2019

The winners of Energy Management Leadership Awards are being determined. The entries are under review by an international panel of ISO 50001 experts. Winners will be selected in April and announced in May at CEM10.



Carbon Capture Utilisation and Storage initiative (CCUS)

The CCUS Initiative is ramping up its activities. Preparations are accelerating towards CEM10, where the Initiative has secured a CEM Focus Session, under the theme of "Accelerating CCUS Together - Financing a key piece of the clean energy puzzle". The Members are actively engaging with financial institutions and preparations are advancing to have several finance-sector executives present at the Focus Event on 29 May. The Initiative will also hold its annual meeting on Monday 27 May, discussing - among other things - the technical developments on CCUS with the Carbon Sequestration Leadership Forum Technical Group.

A detailed work plan for 2019-2020 is being finalised and the initiative has also established presence on LinkedIn. It is in the process of opening an "Ask an Expert" functionality on the Clean Energy Solutions Center website.

The CCUS initiative currently has ten members: Canada, China, Japan, Mexico, Norway, Saudi Arabia, South Africa, United Arab Emirates, United Kingdom and the United States. Norway and the European Commission are observers. New members are welcome!

For any details regarding the CCUS Initiative work, please contact the Initiative Coordinator Mr. Juho Lipponen at juho.k.lipponen@outlook.com.

CCUS Roundtable took place in Washington, US on 13-14 February 2019

The CEM CCUS Initiative lent its support to a CCUS roundtable meeting organised by Japan's METI and the D.C. based think-tank C2ES. Some 70 participants from 12 countries attended the meeting, both Japan and the US at vice-minister level. Senator Sheldon Whitehouse, one of the key sponsors of the US 45Q legislation, was also in attendance. 45Q tax credits offer an interesting

The CEM LTES campaign aims to promote the wider adoption and improved use of long-term model-based energy scenarios as a key driver of this effort, by: (1) sharing country experience in the use and benefits of long-term energy scenarios to support clean energy transition through national and regional policy planning; (2) showcasing innovative tools and methods for energy scenario modelling that address features of long-term clean energy transition; and (3) identifying approaches to build and enhance national capacity for clean energy transition planning and to share with countries with limited experience.



Sustainable Cities and Eco-energy Towns initiative

Russia and Korea convened a working level meeting in the margins of the CEM10 Preparatory Meeting in Santiago, with participation from the UAE, Saudi Arabia, the National Renewable Energy Laboratory and the CEM Secretariat. At this meeting, Russia and Korea briefly presented outcomes achieved since CEM9 and presented a work plan for 2019-2020. All participants were invited to have an in-depth discussion on how to increase the impact of this initiative. Overall, there was a strong recommendation to improve communications with other CEM Members, produce a concrete work-plan and to address outstanding operational issues. To that end, the initiative is planning to organise a webinar and to release a newsletter to share outcomes and results of its work. In addition, Russia and Korea are in the process of identifying key priority areas in each participating country and plan to produce a mid-term work plan and a timeline for delivery based on the needs of each participating Member.



New Clean Energy Ministerial home page

Earlier this year, we launched our new CEM home page. We hope that you like the look and feel of the page! We also introduced a new Events tab on the website to track all upcoming events in one place. Please contact the CEM Secretariat to add your event to the calendar.

In our efforts to further improve the content and design, we are now working on the rest of the websitestay tuned for updates.

financial incentive for CCUS projects. The discussions will serve to highlight CCUS towards the G20 process during Japan's Presidency. C2ES will issue a recommendations paper in March-April, which will serve as input to G20 energy and environment ministers' meetings in April-June.

Webinar on UK's CCUS policy took place on 14 March 2019

Some 270 participants joined the CCUS Initiative webinar led by UK BEIS CCUS lead Will Lochhead and Assistant Head of CCUS R&D and Innovation Brian Allison, who outlined the UK's ambitions to become a global leader in CCUS, and the associated policy approaches. The UK targets its first large-scale CCUS project for mid-2020s. Half a dozen projects are under various development stages across the country; the UK also has appraised several large-scale CO₂ storage options offshore, under the seabed in the North Sea. A wide portfolio of research is also under way in several academic institutions across the UK.



Regional and Global Energy Interconnection initiative

An "Energy Interconnection to Address Climate Change" workshop was co-hosted by the Global Energy Interconnection Development and Cooperation Organization (GEIDCO) and the Environmental Defense Fund (EDF) under the CEM umbrella at COP24 in Katowice, Poland in late 2018. The workshop organisers invited representatives from government departments, associations, private sector and international organisations to discuss the importance of inter-connectivity, energy interconnection models and demonstrated scenarios. They shared experiences and ideas on policy and regulation, trading mechanisms as well as business models.

The Initiative is currently working on a report, based on regional grid interconnection data, to be presented in the margins of CEM10. In addition, the initiative plans to issue a policy brief, which will highlight the key policy findings from its case study report, particularly the three models of interconnection: domestic, transnational and intercontinental. For more information about the workshop and upcoming events, please contact dongning-zhang@geidco.org or ruishi@geidco.org.

CEM Brochure

The CEM Secretariat has published a new brochure about the CEM's unique collaborative model and the wide variety of year-round work carried out by its members and partners to accelerate the transition to a clean energy future.

The **brochure** presents the goals and objectives of each current initiative and campaign, highlights key actions and success stories, and also lists the participating countries, the operating agents and coordinators that support the work of the CEM. You can download a copy of the brochure from the CEM's website.





Upcoming work stream activities

Smart Grid Week in Stockholm

ISGAN will hold a workshop on "The future of electricity markets in a low carbon economy" as well as host a Knowledge Transfer Project event that will focus on innovative regulatory approaches to advance smart grid deployment.

1 to 5 April Stockholm, Sweden

Power System Flexibility Campaign

The PSF Campaign will be organising a deep-dive event on Digitalisation and Power System Flexibility on 10th April from 14:30 to 16:30. For more details please contact Enrique.gutierrez@iea.org

10 April from 14:30 to 16:30 Paris, France.

CEM Investment and Finance Initiative Triggering investments in the integrated energy

Triggering investments in the integrated energy transition, at Berlin Energy Transition Dialogue

The energy transition is driven by new technologies and falling costs, increasingly making renewables the best option and changing the underlying economics of the energy system. Still, the bulk of all energy investments goes into fossil fuel sector and fossil fuel subsidies amount to 6.5% of world GDP. In order to meet the "well below 2 degrees" of the Paris Climate Agreement, investment of more than 3,500 billion into the energy transition on average per year is needed. It is becoming clear that sufficient funds are available,

10 April from 9:30 am to 11:00 am Berlin, Germany but there is a clear need for aligning investments and financial streams with the objective of accelerating the energy transition in all sectors. This session is seeking answers to these challenges.

For more information please contact: Ellen von Zitzewitz, Ellen.Zitzewitz@bmwi.bund.de or Sebastian Jasim, sebastian.jasim@bee-ev.de

C3E - Executive Committee

Clean Energy Education and Empowerment (C3E)
Initiative Executive Committee Meeting and Workshop.

C3E member countries will be meeting to advance the initiative's programme of work and will engage with key experts and private sector actors to share best practices on gender equality in the energy sector.

10-11 April Vienna, Austria

Long term Energy Scenarios Campaign

"Bringing together policy makers and energy experts to debate the role of long-term scenarios in the clean energy transition"

The objective of the International Forum is to discuss issues regarding the use of LTES and development and capacity building to support the clean energy transition. The discussion will be based on the outcomes of the LTES campaign's first year of activities.

Drawing on the broad network developed through the campaign, the International Forum will gather experts and stakeholders who use/develop energy scenarios in different settings: government, industry and private sector, academia and technical institutions.

At the Forum, IRENA's new "Energy Transition Scenario Network" will also be launched. To register, please click here.

10-12 April Berlin, Germany

Clean Energy Solutions Center

Corporate Renewable Energy Update: Vietnam

The landscape for corporate renewable energy procurement is evolving rapidly in Vietnam. The Government of Vietnam recently released a draft Decision of the regulations that will guide rooftop and utility-scale solar PV opportunities starting July 1, 2019. In addition, the design and approval of the Direct Power Purchase Agreement (DPPA) pilot program led by USAID V-LEEP are nearing fruition, meaning significant opportunities for off-site renewables-based PPA contracts will be available to corporate energy users participating in the pilot program. This webinar will provide an update on commercial and industrial rooftop solar opportunities in Vietnam, as well as an overview of the upcoming DPPA pilot program

17 April Webinar Contact: katie.contos@nrel.gov

Registration link:

https://attendee.gotowebinar.com/register/56388259

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NICE Future Initiative: Webinar series

Stay tuned for upcoming webinars featuring topics related to the potential for nuclear energy in clean energy systems. Upcoming themes include: women in the nuclear workforce and potential contributions to the CEM Equal by 30 Campaign; millennial voices and perspectives on clean, advanced, and innovative systems; and a spotlight on Latin America. To replay any of the past webinars, please go to the channel on the Clean Energy Ministerial YouTube page: https://youtu.be/_v1xy4PePBQ

Contact Point: Jordan Cox (jcox@nrel.gov) (To be added to the mailing list, please email Jordan).

Webinar series

NICE Future initiative: Earth Day discussion on nuclear energy

Description: In honor of Earth Day, high-level Romanian officials will present the NICE Future initiative in a public discussion about nuclear as an important means for Romania to reduce emissions.

Contact: Valentina Dinu

Valentina,vdinu@nuclearelectrica.ro Contact Point: Jordan Cox (jcox@nrel.gov). April 22 Bucharest, Romania

Sustainable Cities and Eco-Energy Towns intitiative

The Sustainable Cities and Eco-energy towns initiative is planning an expert workshop on "Clean Fuel Policy and Technology in the Transport Sector" in Ulsan, Korea.

The focus of the workshop will be on identifying and sharing best practices in accelerating the deployment of low-carbon vehicles and fuels at national and subnational levels. The workshop will also look at opportunities and challenges in deploying eco-friendly vehicles and discuss ways forward for CEM work streams to further promote eco-friendly vehicles. The workshop will be held on 25 April and the site visit to the Ulsan hydrogen town and hydrogen fuel-cell charging station will take place on 26 April.

For further information, please contact: Youngsun Choi yschoi@keei.re.kr

25 - 26 April Ulsan, Korea

Energy Management Working Group and Energy Management events at CEM10

Global Energy Management Leadership and Impact, Wednesday 29th May, 11:00-11:30: this side event will 27 - 29 May Vancouver, Canada recognize Energy Management Leadership Awardees and Campaign Partners.

Also at CEM10: Accelerating Energy Efficiency in Industry and Transport (public private roundtable)

- Best practices and experiences will be presented and cross cutting opportunities and policy gaps in the two sectors will be identified.
- The proposed outcome from the roundtable will be to identify promising business models and policy frameworks that can adjust market value for the options of innovative solutions.

 Recommendations that come out of the roundtable will be used to see how this kind of work can be better integrated with industry and the transport sector.

NICE Future initiative events at CEM10

Dispatchable Clean Energy: Cutting the Cost of a Low-Emissions Future

Dates: Monday, May 27th 12–1:30pm at CEM10
A presentation co-led by environmental nongovernment organizations with government leaders at
CEM10 to preview analysis on how dispatchable clean
energy can help reduce the costs of a low-emissions
future.

Contact Point: Jordan Cox (jcox@nrel.gov)

The NICE Future initiative: Breakthroughs: Flexible Nuclear Energy Systems in a Clean Energy World Wednesday 29th May, 3:15 to 4:15pm at CEM10 Join the NICE Future initiative ministers, as they release the initiative's first report on the innovative roles that nuclear can play in clean energy systems.

Contact Point: Jordan Cox (jcox@nrel.gov)

27 - 29 May Vancouver, Canada

CEM Investment and Finance initiative events at CEM10

Mobilizing clean energy investment: The Role of Public Financial Institutions

Organised by Denmark, together with other partners (i.e. the World Bank)

15:00 pm to 18:00 pm, 27 May, Vancouver, Canada

Public financial institutions are key players in enabling mobilization of investment in clean energy. The three hour workshop will highlight and advance the role of public financial institutions in enabling scaled up investment in clean energy and to strengthen collaboration between the financial institutions, governments, international organizations and the private sector. This workshop is also a mean to strengthen the linkages between the energy and finance communities in the CEM Investment and Finance Initiative (CEM IF)

27 - 29 May Vancouver, Canada Please contact: Anders Gerhard Jørgensen agj@efkm.dk, Rui Luo rui.luo@cemsecretariat.org

Mobilising Investment and Financing: Addressing the Risks Required to Attract Clean Energy Investments at

Scale – Roundtable at the 10th Clean Energy Ministerial Organiser: International Energy Agency, together with Canada

11:00 am to 12:00 pm, 29 May, Vancouver, Canada This roundtable presents an opportunity for policy makers to explore options to alleviate some of the most pressing risks facing clean energy investments, as they seek to attract public and private sector finance at scale. It also provides a unique opportunity to start connecting the dots between various existing efforts that are seeking to address challenges in clean energy and sustainable finance more broadly. Moreover, the roundtable aims to highlight new opportunities and business models that will allow broad benefits from the transition to a cleaner growth economy.

Please contact:

Michael Waldron, Michael.WALDRON@iea.org Livia Gallarati, IEA/STO/ESIO Livia.GALLARATI@iea.org Emily McTaggart emily.mctaggart@canada.ca Rui Luo rui.luo@cemsecretariat.org

Electric Vehicle Initiative (EVI) events at CEM10

27th May, 2019: EVI-'Expert Panel on Electrification in Transportation'

The event will gather key stakeholders to discuss how to accelerate the agenda on electrification of the transport sector with the focus on mass transit/freight, sustainable battery deployment and infrastructure. The Global EV Outlook 2019 will be launched at the event.

27th –28th May, 2019: EVI Advisory Board Meeting
The biannual EVI Advisory board meeting, the main
governing body for EVI, will take place on 27–28 May in
the margins of the CEM10 meeting.

27 - 29 May Vancouver, Canada

CEM Investment and Finance initiative workshop

Date and time of workshop TBC

The workshop's focus will be on energy efficiency and is intended to further the discussion on how to shape policies and markets in energy efficiency of buildings and small-scale renewable project investments. It will also share best practices from across the EU and other countries, highlighting a selection of European Commission supported projects and initiatives which have potential to be replicable in other CEM countries.

17-19 June Brussels, Belgium For further information, please contact: Joseph.SMALLWOOD@ec.europa.eu

For all upcoming CEM events, click here

In case you missed:

CEM Member Portal



The CEM Member Portal launched earlier this year. It is a space reserved for individuals who officially represent countries and institutions who are members of the Clean Energy Ministerial. Make sure you register before CEM10 to access all essential information for the meeting, including the pre-read package, which will be available in early May.

About the Clean Energy Ministerial



Watch the CEM documentary

Follow us on Twitter @CEMSecretariat







